NYU-ECNU
Institute of Mathematical Sciences
at NYU Shanghai

PROBABILITY SEMINAR

TOPIC: **Dependence in Stock and Option Price Modeling**

SPEAKER: **Arthur Larry Wright, Visiting Professor at NYU Shanghai**

TIME: 1:45-2:45 pm, 11 December 2014

VENUE: Room 209, Pudong Campus, 1555 Century Avenue (世纪大道 1555 号，浦东校区，209 室)

ABSTRACT OF THE TALK

In the first part of the talk we give a brief discussion of some of the more well-known examples of stock and option price models, such as the random walk model for stock prices, and the Cox-Ross-Rubinstein model, the Black-Scholes model, and Steve Kou's double exponential jump process model for option pricing. In the second part of the talk we discuss the limitations of most models in this area, particularly the assumptions of independence. In the third part we propose an approach using Poisson processes and associated processes, which may describe the actual price processes more realistically. In the last part of the talk we discuss what is really used in practice by traders and hedge funds.

BIOGRAPHY

Arthur Larry Wright is currently a visiting professor at NYU Shanghai. He has held faculty positions in the Mathematics and Statistics Departments at the University of Arizona, and the Industrial Engineering and Operations Research and Statistics Departments at Columbia University. His areas of interest are financial engineering, sports statistics and probability theory.